

## II. AMENDMENTS TO THE SPECIFICATION

Please amend the Specification as follows:

Page 11, line 15 to page 12, line 13.

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In one embodiment, the system may include a plurality of compression/decompression engines (CODECs) that may each implement one of a plurality of compression algorithms and a corresponding decompression algorithm. In one embodiment, a page translation entry for a page may indicate the particular compression algorithm that was used to compress the page. In one embodiment the page translation entry may include an attribute, which may be referred to as a CODEC selector attribute, that may be set to cause a particular compression algorithm to be used to compress the page, and thus also indicates the corresponding decompression algorithm. In one embodiment, two or more different compression algorithms may be performed on the data, and one of the compression algorithms may then be selected as the desired compression algorithm for the data. The desired compression algorithm for the data may be selected, for example, based on compression ratio. In other words, the compression algorithm that yields the highest compression ratio for the data may be selected. Other criteria, or a combination of two or more criteria, may be used to select a compression algorithm from the plurality of different compression algorithms. For example, the fastest compression algorithm may be selected. When the data needs to be decompressed, the page translation entry may be examined to determine the appropriate decompression algorithm for the data, and the compressed page or pages containing the data may then be routed to one or more CODECs that implement the appropriate decompression algorithm to be decompressed. In one embodiment, the plurality of CODECs may perform the compression or decompression of the page in parallel. In one embodiment, the system may include a plurality of compression/decompression engines (CODECs) that may each implement a substantially similar compression algorithm and a corresponding decompression algorithm. In this embodiment, a page of

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data to be compressed or decompressed may be divided into portions, and each of the portions may be compressed or decompressed by a different CODEC. After the portions are compressed or decompressed, the uncompressed or compressed portions of the page are merged to form the uncompressed or compressed page. In one embodiment, the plurality of CODECs may perform the compression or decompression of the portions of the page in parallel.

Page 15, lines 1- 27.

### **Detailed Description of the Preferred Embodiment**

#### Incorporation by Reference

A<sub>2</sub>  
The following patents and patent applications are hereby incorporated by reference in their entirety as though fully and completely set forth herein.

U.S. Patent No. 6,173,381 titled "Memory Controller Including Embedded Data Compression and Decompression Engines" issued on January 9, 2001, whose inventor is Thomas A. Dye.

U.S. Patent No. 6,170,047 titled "System and Method for Managing System Memory and/or Non-volatile Memory Using a Memory Controller with Integrated Compression and Decompression Capabilities" issued on January 2, 2001, whose inventor is Thomas A. Dye.

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09/239,659  
U.S. patent application Serial No. ~~09/239,658~~ titled "Bandwidth Reducing Memory Controller Including Scalable Embedded Parallel Data Compression and Decompression Engines" whose inventors are Thomas A. Dye, Manuel J. Alvarez II and Peter Geiger and was filed on January 29, 1999. Pursuant to a Response to Office Action of August 5, 2002, this application is currently pending a title change from the above to "Selective Lossless, Lossy, or No Compression of Data Based on Address Range, Data Type, and/or Requesting Agent."

U.S. Patent No. 6,208,273 titled "System and Method for Performing Scalable Embedded Parallel Data Compression" issued on March 27, 2001, whose inventors are Thomas A. Dye, Manuel J. Alvarez II and Peter Geiger.

U.S. patent application Serial No. 09/491,343 titled "System and Method for Performing Scalable Embedded Parallel Data Decompression" whose inventors are Thomas A. Dye, Manuel J. Alvarez II and Peter Geiger, and was filed on January 26, 2000.

U.S. ~~p~~Patent ~~application~~ Serial No. ~~09/550,380~~6,523,102 B1 titled "Parallel Compression/Decompression System and Method for Implementation of In-Memory Compressed Cache Improving Storage Density and Access Speed for Industry Standard Memory Subsystems and In-Line Memory Modules" issued on February 18, 2003, whose inventors are Thomas A. Dye, Manuel J. Alvarez II and Peter Geiger, ~~and was filed April 14, 2000.~~